

Question 2D - Responses to 2.i.

Hickman's Family Farms (HFF) utilizes engineering controls at both the Arlington and Tonopah facilities to reduce and/or mitigate emissions of particulate matter, volatile organic compounds, and oxides of nitrogen, carbon monoxide, and ammonia. As stated in our previous submittals, the engineering controls include, but are not limited to:

- Manure drying barns with curtains to ensure that the manure is dried by the exhaust air from the layer barns reducing emissions and odors associated with wet manure;
- Manure shed screens added to reduce dander from escaping the drying barns when operating manure belts;
- A dust free zone enforcement policy pertaining to all facility access roads, paved or unpaved;
- Restricting or eliminating public access to farm with signs or physical obstruction, which reduces the number of trips driven on aprons and access roads thereby reducing susceptibility to PM10;
- Vehicle idling enforcement policy that applies to everyone that drives vehicles designed to operate on public highways, designed with a gross vehicle weight rating of more than 14,000 pounds, powered by a diesel engine, or operating within Maricopa County;
- Accelerated manure management removal procedures to reduce potential emissions and odor as follows:

Arlington Facilities:

- Lay House 1-7 – approximately every 9-12 days.
- Lay House 8-23, 25, and 26 - manure belt operation ½ way daily, therefore it is emptied every other day.
- Lay House 24 – removal as needed, but could be as often as every 3-6 weeks. This house has a manure drying shed that maintains the manure in compost rows.

Tonopah:

- The manure is removed from facility 5-6 days per week. Each house is completely emptied every 7-10 days to ensure that there is not a build up for flies and pests to create a harborage.
- Agricultural PM10 Best Management Practices utilized for PM10 emissions at Arlington and Tonopah as follows:

Arenas, Corrals and Pens (Housing)

- Use no bedding
- Add moisture through ventilation systems
- House in fully enclosed ventilated buildings

Animal Waste (and Feed) Handling and Transporting

- Store feed
- Use enclosed feed distribution system
- Enclose transfer points
- Clean floors and walls in a commercial poultry facility
- Clean aisles between cage rows

Unpaved Access Connections

- Restrict traffic access
- Install signage to limit vehicle speed to 15 mph

Unpaved Roads or Feed Lanes

- Install signage to limit vehicle speed to 15 mph
- Restrict traffic access

To further clarify your question in reference to the compliance plan used as a corrective action in the event there is a sample indicating noncompliance for H2S, to date, HFF has not exceeded the 0.03 parts per million by volume (ppmv) standard outlined in the Maricopa County Air Quality Department

(MCAQD) Arlington (Permit #: 040136, Revision #: 2.0.3.0) or Tonopah (Permit #: 140062, Revision #: 0.0.1.0) permits issued to HFF.

In addition, as outlined in the permits, HFF is required to monitor hydrogen sulfide levels at a location representing the nearest occupied place beyond the premises on which the source of hydrogen sulfide is located within 90 days within any of the three following events:

- a. The start-up of the applicable odor source; or
- b. The receipt of three (3) odor complaints within any 12-month period; or
- c. The reception of a written request from the Department.

HFF is also required to submit a report within 30 days of completion of each demonstration to the MCAQD that details the results of each compliance demonstration. In addition, HFF is required to perform an additional compliance demonstration within six months of completing the initial demonstration. Based upon the test result concentrations of the first two compliance demonstrations, monitoring is permitted to subsequently be conducted on an annual basis. Similarly, if subsequent concentrations are less than 0.03 ppmv for two consecutive annual compliance demonstrations, compliance demonstrations will no longer be required. If results from any annual compliance demonstration indicate that the H₂S concentration is greater than 0.03 ppmv, HFF is required to return to the semi-annual compliance demonstration schedule.

In lieu of the above reactionary hydrogen sulfide testing schedule, HFF has proactively and voluntarily monitored Hydrogen Sulfide and Ammonia on a monthly basis at both the Arlington and Tonopah facilities. Included with this response are two PDF attachments (Titled: Tonopah Facility H₂S revised locations and Arlington Facility H₂S revised locations) that detail the specific locations of the monitoring events.

In the event of an exceedance, HFF will stringently follow the requirements outlined in our approved MCAQD permits, including, but not limited to:

- Submitting a Compliance Plan to the MCAQD for approval, which includes:
 - Technological evaluation of additional odor control alternatives at the plant.
 - Additional monitoring and/or air dispersion modeling to determine property line concentration of hydrogen sulfide based on the implementation of selected odor control alternatives.
 - Conceptual design and preliminary cost estimate for the proposed odor control alternatives.
 - Schedule for design and construction of the proposed control alternatives.
 - Description of recommended actions.
 - The Permittee shall complete and submit the Compliance Plan within 120 days of exceeding the hydrogen sulfide emission limitation.